From: Debbie P
To: Benton Public Comment
Subject: LU-24-027 Additional rebuttal from VNEQS
Date: Tuesday, July 1, 2025 12:43:16 PM
Attachments: VNEQS_Addendum_LU-24-027_07012025.pdf

Chair Fowler and Planning Commissioners,

Attached please find a PDF of a new submission from VNEQS (VNEQS_Addendum_LU-24-027_07012025), in response to Applicant's supplemental Exhibits on odor, methane and other aspects of landfill gas.

I am submitting this for Nancy Whitcombe, on behalf of VNEQS, as she was having computer technical difficulties.

Thank you for your time and attention.

Respectfully submitted,

Debbie Palmer
37340 Moss Rock Dr.
Corvallis, OR 97330

Valley Neighbors for Environmental Quality and Safety (VNEQS)

To: **Chair Fowler** and Benton County **Planning Commission members**

CC: Anne Thwaits, Benton County Public Information Officer
Petra Schuetz, Benton County Community Development Department
Winterbrook Planning (incl. Maul Foster Alongi, Kellar Engineering)

From: Valley Neighbors for Environmental Quality and Safety (VNEQS)
https:coffinbuttefacts.org
North Benton County
Oregon, 97330

Date: July 1, 2025

Re: LU-24-027 CUP application – VNEQS Response: Addendum on **landfill gas and methane**

Chair Fowler, Planning Commissioners,

Attached please find an Addendum that responds to Applicant's Exhibits on odor, methane, and other aspects of landfill gas. We call into question the Applicant's various misrepresentations on these important issues and especially, question the huge elisions of real-world data known to the Applicant, but not appearing anywhere in their Application.

VNEQS representatives will be present in person or online at the July hearing dates to address any questions Commissioners or Benton County Staff have with this Addendum, prepared by a subject-matter expert.

Sincerely,

Nancy Whitcombe

Nancy Whitcombe, LEED AP Architect
on behalf of VNEQS

VNEQS, Valley Neighbors for Environmental Quality and Safety
North Benton County
Oregon, 97330
https://www.coffinbuttefacts.org

ADDENDUM:
CRITICISMS OF APPLICANT SUBMITTALS REGARDING LANDFILL GAS AND METHANE CHARACTERIZATIONS

LU-24-027
CONDITIONAL USE PERMIT APPLICATION

Here are additional criticisms of the Applicant's submittals, including those most recent:

- The Applicant has not put its representations of the landfill's emissions and environmental practices in context with other landfills. This gives the Planning Commission insufficient context to evaluate those emissions and practices, and so the Applicant has failed their Burden of Proof.

- The Applicant has elided or downplayed relevant third-party data, and cherry-picked from sources it does use, to support its representations.

- The Applicant has not provided the Planning Commissioners a representation of the harms of the climate impacts of landfill greenhouse gas emissions. Those harms are significant.

AN ENVIRONMENTAL PERFORMANCE CONTEXT:
COFFIN BUTTE LANDFILL COMPARED WITH
COLUMBIA RIDGE LANDFILL ("ARLINGTON")

Throughout the Applicant's representations of its landfill gas emissions, its operations performance is normalized in context with *environmental enforcement*, not in context with the operations performance of other landfills. In plain terms, the Applicant is trying to convince you that, since they're not in handcuffs, everything must be fine. In a way, this is an honest portrayal, as the landfill operators do seem focused on avoiding fines rather than on attaining the levels of environmental protection metrics that other landfills do. As Planning Commissioners, however, you do have to gauge the operations performance of the landfill in its real-world context, and the Applicant has not supplied that performance narrative to you, to aid in your deliberations.

"Focused on avoiding fines rather than attaining environmental protection" sounds like hyperbole, but there's sufficient evidence that it is a truthful statement. Examples would be the timeline of EPA enforcement action against the landfill over methane emissions;[1] the timeline of DEQ enforcement action against the landfill over air quality compliance; and this series of exchanges, from the EPA's 2022 inspection of the landfill, between the EPA Inspector (Heins) and the Applicant's Environmental Technician (Caruso):

Flag #51 was by a broad area where the tarp was visibly inflated with gas. The tarp was not moving in the wind, it looked to be being pushed out steadily over a wide area towards the top of the south slope on the central area of the landfill, being held down by straps, cover anchors, and sandbags. Neither Daniel Heins nor Phil Caruso could identify any place where the wind could be lifting under the tarps, as the tarp edges were sandbagged and staked down. Daniel Heins measured a concentration of 2% at flag #51 before pulling away to avoid maxing out his instrument. He measured the methane concentration to be 2000 ppm at 3' in the air at this location, indicating a plume of gas coming out from the inflated tarp area. Along the top of this section of tarp, from flag #52 to #54, every post or tarp hole Daniel Heins monitored exceeded the surface methane standard, with readings of up to 7% shown before the instrument maxed out.

Phil Caruso did not dispute any of the readings, though noted that he would not have checked many of the exceedance locations, that he would have spent less time monitoring, or that he would have considered a higher location to be "the ground" when placing his probe 5 to 10 centimeters (cm) above the ground per the SEM regulations.

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[1] see "timeline" PDF attachment to Testimony #1410, sent by Ken Eklund

At an exceedance (flag #1) with a hole in the ground from an animal burrow, Phil Caruso stated that he would have considered the "ground" to be where the ground would have been if an animal didn't dig a hole into it at that location, rather than the ground at the base of the hole, and thus measured from a significantly higher location than Daniel Heins. At an exceedance (flag #2) between overlapped tarp material, with one piece of tarp raised above the other with a gap of air in between, Phil Caruso stated that he would have monitored with his probe above the upper tarp, rather than measuring the 5 to 10 cm from the tarp against the ground.

When Daniel Heins was monitoring a cluster of decommissioned wells with a patch of distressed soil (flag #3), Phil Caruso stated that he would have moved on after not directly getting above 500 ppm within twice his instrument response time even if there was an increase in reading, rather than moving around the penetration points slowly to find maximum reading point and then waiting twice the response time at this maximum reading location.

When Daniel Heins was monitoring at leachate cleanouts, Phil Caruso stated that he does not monitor at these and that they are not fully penetrating the cover. Daniel Heins responded that it was likely that many of these ultimately did penetrate the cover, especially in areas of thinner intermediate cover, and that regardless he recommended checking these as they were proving to be repeated sources of extremely elevated emissions, many over an order of magnitude above the surface methane standard. Phil Caruso stated that he was not required to monitor these. Daniel Heins and Phil Caruso had a similar discussion at the valve box dug into the cover with a reading of 4% methane (flag #37), with Phil Caruso stating that this was not a penetration and thus he did not have to monitor this.

When Daniel Heins was monitoring at a horizontal penetration of the cover associated with a well (flag #16), Phil Caruso stated that he would not have monitored this as a penetration.

Phil Caruso stated that he would not have monitored the Cell 5 leachate riser that Daniel Heins measured multiple exceedances at, as it was outside of the waste mass.[2]

The Applicant's technician makes it clear that his priority is to get as few detections as possible – and that he has normalized flouting the environmental regulations. His response to a detector reading of 7% methane – an explosive level – is that if he were wielding the detector, it would

[2] see 2022 EPA Inspection Report, attachment on Page 1 of BC_4 by Mark Yeager

never have been detected. Dodging compliance enforcement is the context of what we might call the "Caruso Effect," which is the dominant motivation at work here, and environmental protection carries no weight whatsoever. There are many other examples – indeed, they are pervasive in independent reports about operations at this landfill. It might be predicted, therefore, that Coffin Butte Landfill will score very poorly when compared to other, presumably Caruso-free, operations.

Let's compare Coffin Butte Landfill with another landfill, the Columbia Ridge Landfill near Arlington, Oregon. Both landfills deal primarily with municipal solid waste. We choose Columbia Ridge Landfill ("Arlington") because it is the reasonable alternative for Benton County's waste when Coffin Butte Landfill is no longer the County's choice or option. According to its operator, Waste Management, Arlington is an active candidate to receive Benton County waste, which could be shipped efficiently and economically by rail to a more environmentally sound landfill.[3]

Data primarily from EPA and DEQ records for each facility, augmented by Republic and WM self-reporting.

	COFFIN BUTTE LANDFILL ("Coffin Butte") Benton County, Oregon	**COLUMBIA RIDGE LANDFILL "Arlington"** Gilliam County, Oregon	**difference**
	KEY DIFFERENCES		
Yearly trash intake	1.05 million tons	2.9 million tons	Arlington takes in approximately **2.75x more trash** per year than Coffin Butte
Waste-in-place	20 million metric tons	42 million metric tons	Arlington has approximately **2x more trash** emplaced than Coffin Butte
Landfill surface	466,000 square meters	1,341,130 square meters	Arlington has approximately 3x more landfill surface area to monitor as Coffin Butte does
Annual precipitation	50 inches	9 inches	Arlington has a much drier climate, which slows methane generation
Landfill Gas Emissions – third-party aerial sensing	1.6 metric tons of methane / 3.2 metric tons of landfill gas emitted per hour*	0.8 metric tons of methane / 1.6 metric tons of landfill gas emitted per hour**	Despite its much smaller intake and smaller waste-in-place, from aerial survey data Coffin Butte Landfill is estimated to emit approximately **2x more greenhouse gases** than Arlington
	OTHER RELEVANT DIFFERENCES		
Landfill cover	soil or tarps	sand	Coffin Butte uses tarps extensively, and tarps do little to prevent landfill gas from escaping

[3] see letter and flyer attachments to Testimony #1572, sent by Jackie Lang

	COFFIN BUTTE LANDFILL ("Coffin Butte") Benton County, Oregon	COLUMBIA RIDGE LANDFILL "Arlington" Gilliam County, Oregon	difference
Capacity remaining	15 million metric tons	320 million metric tons	Coffin Butte is 60% full; Arlington is 12% full
Landfill area, including buffer	780 acres	10,000 acres	Arlington has approximately 13x more area buffering the waste deposit from other land uses
People who live within a mile of the landfill	192 including 47 children	7 including two children	Coffin Butte has approximately 27x the population density of Arlington, expressed as people living within 1 mile of the waste deposit
People who live within three miles of the landfill	1,766 including 381 children	61 including 17 children	Coffin Butte has approximately 29x the population density of Arlington, expressed as people living within 3 miles of the waste deposit
People who live within five miles of the landfill	8,386 including 1,935 children	168 including 48 children	Coffin Butte has approximately 175x the population density of children than Arlington, expressed as people under the age of 17 living within 5 miles of the waste deposit
Population density (5-mi radius)	108 per square mile	2 per square mile	Coffin Butte has 54 times the population density of Arlington in the area 5 miles in radius around the landfill
Leachate trucked offsite to be disposed elsewhere annually	40 million gallons	None	At Arlington, leachate is collected, evaporated, then returned to the landfill

* Data from 23 aerial and satellite surveys by Carbon Mapper. Confidence window: 1.6 metric tons methane per hour, +/-0.5 metric tons

** Data from 15 aerial and satellite surveys by Carbon Mapper. Confidence window: 0.8 metric tons methane per hour, +/-0.2 metric tons

Based on standard calculations, Coffin Butte Landfill should emit significantly less landfill gas than Arlington, as Coffin Butte has half as much waste in place and annually takes in a third of what Arlington takes in. EPA reports reflect this expectation of lower emissions at Coffin Butte, as they base their estimates on modeled emissions, not actual measurements. But instead Coffin Butte is shown to be emitting twice as much landfill gas as Arlington, which is why articles have appeared on OPB, in the *Salem Statesman Journal*, in *Grist*, in Canary Media, in *High*

Country News and so on, focusing on the concerns of excessive landfill gas emissions at Coffin Butte Landfill.

With EPA enforcement, the wheels of justice grind slowly, slowly, but even they have been set in motion. As detailed in the updated CBL–EPA timeline,[4] the EPA has investigated Coffin Butte Landfill for environmental violations, and found evidence of them; this evidence includes advanced remote monitoring performed by the climate science non-profit Carbon Mapper; the EPA's investigation has now moved into a legal action, requesting documents to evaluate for enforcement purposes; Republic Services has delayed the progress of that investigation and downplayed its history and significance in the material supplied to the Planning Commission. Republic Services has not met its burden to prove that this ongoing active enforcement by the EPA, supported by sensing data from Carbon Mapper, does not seriously undermine Republic's assertion that it acts as a responsible environmental steward in landfill operations.[5]

In its flyer,[6] WM includes this photo and caption:

Innovation: renewable energy and drones at Columbia Ridge

Columbia Ridge is also an innovation leader — a platform for renewable energy and next-generation drone technology. We use landfill gas to power homes and businesses, and we use drones to capture real-time data to ensure safe and complaint operations.

According to this flyer, WM is already using advanced monitoring technology to "capture real-time data" to aid in its stated goal of 100% environmental compliance. Republic, however, has resisted the adoption of such technologies – to the point where it has literally required an Act of Congress to force the landfill to do so. Senate Bill 726, passed in June, will require Coffin Butte Landfill to begin to use advanced monitoring technology such as methane-sniffing drones to better monitor its landfill gas emissions – if, that is, it isn't challenged in court or its provisions watered down to be ineffectual.[7] In any case, it won't take effect until January 2027.

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[4] submitted as a separate testimony; search for "#EPAenforcement"

[5] Applicant: "VLI is fully cooperating with the EPA's Section 114 Information Request" – June 6 Memorandum. Reality: Applicant has filed for two extensions that we know of so far (through FOIA), and has not cooperated with the EPA's Section 114 legal action.

[6] see flyer attachment to Testimony #1572, sent by Jackie Lang

[7] see the bill provisions on State Govt. OLIS

Both the Applicant and the Supplemental Staff Report do the Planning Commission a disservice by focusing on a narrow subset of the available information about Coffin Butte Landfill – as the above has demonstrated, they have not put their representations of the landfill's emissions and environmental practices in context with other landfills and their emissions and practices. This information vacuum deprives the Planning Commission of sufficient context to evaluate the landfill's emissions and practices. It doesn't matter whether the Planning Commissioners find the facts or narrative presented above to be compelling or not, as long as they introduce sufficient doubt in your minds that the Applicant has successfully met their Burden of Proof.

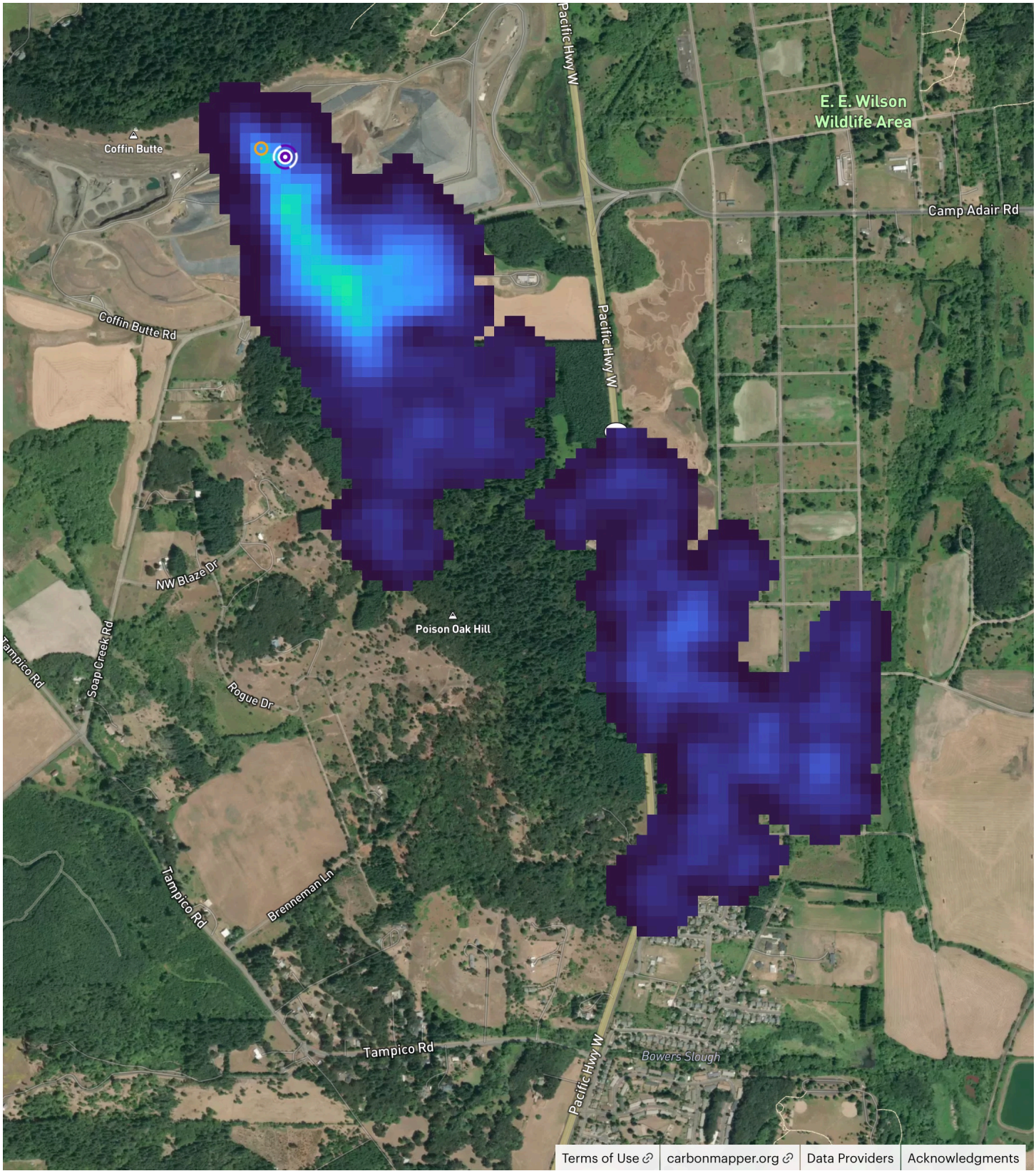
RELEVANT DATA MISSING FROM THE APPLICANT'S ODOR STUDIES AT COFFIN BUTTE LANDFILL

It's a truth simply stated that odor and methane studies are examining the same thing: landfill gas. Because methane is a high-impact greenhouse gas, and is dangerously explosive, extraordinary efforts have been made to develop advanced methane detection technologies. At Coffin Butte Landfill, the landfill gas is around 53% methane. Methane can thus be used as a "marker" to track the progress of landfill gas and its odors with real-world observational data.

The Applicant's odor studies do not do this; they employ mathematical modeling only, which suffers from a "garbage in, garbage out" problem. It's been demonstrated already in other testimonies that the Applicant's odor studies are based on faulty parameters (using an industry-derived estimate for the amount of landfill gas being released, rather than the actual real-world emissions for the landfill; using a release point that's at least a hundred feet too high; using incorrect weather data; and so on.) The Applicant's latest theoretic odor study concludes that the landfill gas disperses quickly, and so "the revised study confirms that odor generated by the landfill expansion will not be at nuisance levels off site."[8]

If the Applicant's odor consultants had consulted the methane detection data, however, they would know that their model was way off. Let's look at a plume of landfill gas, observed from space at Coffin Butte Landfill on April 18, 2025, at 7:47 in the evening.

[8] Condit letter, June 6, 2025



The methane plume is of course the blue-to-green blob stretching from upper left to lower right of this image. The methane detection technology employed here looks for methane at super-emissions levels – i.e., from a point source that's emitting more than 0.1 metric tons of methane per hour. Analyzing the data for this particular plume results in a leak rate of 1.2 metric tons of

methane per hour, so Coffin Butte Landfill was being a super-emitter of landfill gas *a dozen times over* at the time the satellite passed over and made this survey.

To give you a sense of scale, the visible part of that methane plume is about 2 miles long and 2/3rds of a mile wide, and as you can see extends for about a mile past the landfill's outermost boundary and into homes on Poison Oak Hill, into the E.E. Wilson Nature Preserve, and into homes in the town of Adair Village. Remember, this image is tracking methane at super-emissions levels, and the odor threshold is much lower than that, so the plume of odor at nuisance level extends invisibly beyond this plume, probably for miles. A leak rate of 1.2 metric tons of methane an hour is 2.4 tons of landfill gas an hour, and as you can see, 2.8 tons of gas takes up quite a bit of space, volumetrically speaking.

It's a given in the realm of science that if your model does not fit the real world data, then your model is wrong. The Applicant's odor model is wrong, demonstrably so, and should be rejected.

The Applicant relied on that odor model to argue that the other real-world observational data at work here – the many odor reports by community members – were not valid. The hard science, however, backs up the community odor reports.

We have showed you one recent plume image; there are many more. The most recent was observed on May 30, 2025, and its leak rate was quantified at 1.4 metric tons of methane (2.8 metric tons of landfill gas) an hour. The oldest plume image was captured on July 13, 2023; it also had a leak rate of 1.4 metric tons of methane (2.8 metric tons of landfill gas) an hour and its visible plume extended for over a mile, south over people's homes. The dump had a second point source creating a second plume simultaneous with that one. On another occasion, the dump had a point source leaking 5.3 metric tons of methane an hour (10.6 metric tons of landfill gas an hour) AND two other plumes happening at the same time. And so on.

Without a valid odor study to prove acceptable impact levels, the Applicant has failed their Burden of Proof for odor, and their application should be denied.

THE DOCUMENTED HARMS OF CLIMATE DAMAGE FROM EXCESSIVE GREENHOUSE GAS EMISSIONS AT COFFIN BUTTE LANDFILL

Throughout the Applicant's representations of its landfill gas emissions, it has elided the significant harms of excessive greenhouse gas emissions.

Over the past century, Earth's average temperature has risen by approximately 1.1°C (2°F) due to the intensifying greenhouse effect. According to NASA, 2023 was officially declared the hottest year on record with global temperatures surpassing pre-industrial levels by 1.5°C during summer months.

The greenhouse effect is a natural process that helps regulate the Earth's temperature, making it suitable for life. It occurs when certain gases in the Earth's atmosphere, known as greenhouse gases, trap heat from the Sun. These gases act like the glass of a greenhouse, allowing sunlight to enter but preventing some of the heat from escaping back into space.

Decomposing organic waste in landfills produces methane as bacteria break down the material in low-oxygen environments. Poorly managed landfills and wastewater systems are major sources of methane emissions.

This trend is a wake-up call to understand the delicate balance that the greenhouse effect once maintained and how human activity has tipped the scales. The greenhouse effect is not inherently harmful; in fact, it's the reason our planet can sustain life. But now its natural balance is under threat. Excessive emissions of carbon dioxide, methane, and nitrous oxide are creating a dangerous feedback loop, trapping more heat than the planet can handle and fueling climate extremes like never before. The trapped gases are having harmful consequences for the planet:

1. Global Warming and Rising Temperatures

The primary concern with the enhanced greenhouse effect is that the increased concentration of greenhouse gases traps more heat in the atmosphere, leading to an abnormal rise in global average temperatures; this is known as global warming. Warmer temperatures disrupt ecosystems and weather patterns, creating a range of problems:

- Heatwaves become more frequent and intense, endangering human health, agriculture, and biodiversity.
- Melting ice in polar regions and glaciers contributes to rising sea levels, threatening to flood coastal communities.
- Coral bleaching has become prevalent. This is a serious threat to the marine environment considering corals are foundation species which countless species of marine life depend on for survival.

2. Disrupted Weather Patterns and Extreme Events

As temperatures rise, they disturb weather systems. This leads to:

- More intense storms: Warmer air holds more moisture, fueling much stronger hurricanes, cyclones, and more torrential rainfall.
- Droughts: Higher temperatures increase evaporation, leading to water shortages and crop failures in arid regions.
- Shifting precipitation: Some areas may experience more rainfall while others face severe drought.

3. Ocean Acidification

The excess CO_2 in the atmosphere doesn't just stay there—it dissolves into the oceans, forming carbonic acid. Excessive carbonic acid to ocean acidification, which disrupts marine life. Acidic waters harm coral reefs, shellfish, and other marine species that rely on calcium carbonate to build shells and skeletons. This endangers entire ecosystems that depend on healthy oceans for food and livelihood.

4. Threat to Biodiversity

The temperature and weather disruptions caused by the enhanced greenhouse effect put immense pressure on ecosystems and species:

- Many species cannot adapt quickly enough to the changing conditions. In the worst case, this leads to the extinction of species.
- Shifting habitats force wildlife to migrate, often to areas that are not suitable or already inhabited. This creates conflict and strain on resources. Many species die or are forced to adapt to strange environments.

5. Impacts on Agriculture and Food Security

Changes in temperature, rainfall, and the frequency of extreme weather events affect crop growth and food production. Warmer temperatures can reduce crop yields, especially in regions that are vulnerable to drought or heat. Additionally, new pests and diseases, once confined to certain regions, may spread as temperatures rise, compromising global food security.

6. Health Risks

The enhanced greenhouse effect brings about a range of health issues:

- Heat stress leads to increased mortality, especially in the elderly, children, and those with pre-existing health conditions.
- Air quality deteriorates as higher temperatures increase the formation of ground-level ozone, exacerbating respiratory conditions like asthma.
- Warmer climates allow diseases carried by insects (such as malaria and dengue) to spread to new regions.

7. Socioeconomic Challenges

- Forced Migrations: Rising seas and uninhabitable conditions force millions to become climate refugees.
- Economic Costs: Damage to infrastructure, agriculture, and health systems places immense financial strain on governments.
- Resource Conflicts: Competition for dwindling water and arable land intensifies, potentially leading to geopolitical tensions.[9]

Perhaps, Commissioners, to save time you stopped reading the long passage in blue above and skipped down to here. We cannot fault you for doing this; we are all aware of the harms of the climate crisis. The new thing about this passage in blue is that its source is **Republic Services.**

The text in blue is how Republic Services talks about the harms of climate change to customers who can pay to have Republic Services help them minimize their environmental impact. When addressing their own environmental impacts, however, this service seems to be scarce.

Curbing methane emissions has been a focus of climate science efforts; due to methane's high potency as a greenhouse gas, reducing methane emissions is the "low-hanging fruit" to make improvements quickly.

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[9] taken from this page on the ACTenviro website (archived at archive.org). ACTenviro is the subsidiary of Republic Services with "the expertise to help you develop effective programs, comply with environmental regulations and minimize your environmental impact" for a fee.

With its excessive methane emissions, Coffin Butte Landfill is the major source of climate damage in the region. We've established that it is making an outsized impact on all the entities that the land use criteria specify are to be protected: health, economics, forestry and agriculture, wildlife, air and water resources, quality of life and recreation, productive land uses, our government and social services, firefighters and other crucial infrastructure and services, and more. For this reason, the application should be denied.

It should be denied for another reason as well, more urgent and immediate, related to these impacts: because it would be a divisive and detrimental blow to the character of Benton County if, in the face of these admitted impacts, the County would approve this application. The increase in these impacts would largely fall upon other people, and studies show the impacts of the climate crisis are disproportionately falling on the most vulnerable segments of society – the people least able to absorb them. In plain terms, it would be morally wrong to approve an application that puts other, more vulnerable people at risk for severe loss, and to take a morally wrong position goes against the highest character and goals of the people of this County. For this reason, with a clear conscience, the application should be denied.

SUMMARY AND CONCLUSION

In Part 1 of this Addendum, we've supplied necessary context for the environmental performance documented at Coffin Butte Landfill – context that the Applicant has not provided. **We think this context is important for your deliberations about the future of landfill gas emissions at Coffin Butte Landfill, which drive odor, methane and climate impacts, and toxics release including PFAS, and which would only increase with any expansion of the landfill.**

In Part 2 of this Addendum, we've established that the Applicant's odor models are invalid, as their plots diverge wildly from real-world data. The Applicant's odor studies therefore do not call into question the hundreds of odor experiences reported to you in public testimonies and such sources as the Community Concerns Annual Reports compiled by Benton County's Disposal Site Advisory Committee. **We feel that these developments are of major importance for your deliberations about both odor and greenhouse gas impacts to surrounding land uses that would increase with any expansion of the landfill.**

In Part 3 of this Addendum, we've established consensus about the significant impacts of climate change, and pointed to the outsized climate impact of Coffin Butte Landfill, due to the dump's excessive methane emissions and the Applicant's documented history of non-compliance regarding those emissions. Since these impacts would risk significant detriments to every element that the land use criteria direct you to protect, and since failing to do our share in curbing these impacts would be against the character of the area, especially since the people of the area know those significant detriments are striking first and hardest on the least advantaged people in the human society. **We feel these are moral imperatives to consider in your deliberations about the impacts on climate change that would increase with any expansion of the landfill.**

Please add these Applicant shortfalls in substance, veracity, and completeness to the many others detailed in the body of the VNEQS Analysis. Of these Applicant shortfalls, none is as telling as sentences like this:

"[The latest odor study] also demonstrates that the expansion will not significantly increase odor levels above those generated by the existing landfill if the expansion were not constructed."[10]

As we've documented elsewhere, the landfill gas generation of the landfill is increasing because it is a generated product of past intake levels, which have been increasing, and the application would:

1. **increase those intake levels** (with cap removal, Republic's target is an increase to 1.5M tons per year[11]) and
2. **extend the number of years that Republic maintains those rising intake levels**, and
3. **likely both at the same time,** and
4. **move the source of those odors significantly closer to affected land uses**, and
5. **move the source of those odors significantly lower to the ground**, magnifying their nuisance effect.

And this Addendum adds visual and hard science data that adds to the public testimony and evidence presented elsewhere that:

6. **the Applicant's odor study is insufficiently tied to actual real-world data** and its assertion that odor levels cannot be at nuisance levels already is insufficient, and incorrect as an indicator of what's going on in the real world. And

What's going on in the real world is that hundreds of people complain about odors every year, and these complaints are the tip of the iceberg in terms of community members and visitors actually experiencing odors. We have an email from Commissioner Wyse that mentions the first time she got a cabinful of landfill stench driving past the landfill on Highway 99W, for example. And finally:

7. **the Applicant's odor study does not account for the very real human effect of the heightened nuisance value** when the odor in question is known to contain toxics of unknown composition or virulence.

This effect is made clear in numerous public testimonies about the landfill stench: *you don't want to smell it because you don't know what's in it, or you do know what's in it and so actively avoid it at the first signs of it being present*. Yet the Applicant's study ignores this clear public concern, and treats the odor of landfill gas as though it's just the landfill passing gas.

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[10] Condit letter, June 6, 2025

[11] documented in Applicant's submittals to County Planning and to DEQ for their new Title V Air Quality permit, in process now. That's an increase of 36% over present levels.

The same points listed above apply to the landfill's increasing output of greenhouse gases, especially high-impact methane. Again, as documented elsewhere, the greenhouse gas generation of the landfill is increasing because it is a generated product of past intake levels, which have been increasing, and the application would:

1. **increase those intake levels** (with cap removal, Republic's target is an increase to 1.5M tons per year[12]) and
2. **extend the number of years that Republic maintains those rising intake levels**, and
3. **likely both at the same time.**

The effect of an expansion would be to accelerate the landfill's climate impacts, when it is a world priority to decelerate them, for the reasons that Republic itself details in its "environmental impact reduction" services that it peddles to others.[13]

4. **The Applicant's assertions about its uncontrolled methane releases are insufficiently tied to actual real-world data,** and is especially called into question because of the Applicant's history of resisting regulation compliance and delaying or avoiding environmental enforcement.

5. **the Applicant's elisions of its carbon footprint does not account for the very real human effect of the damage to the character of the area** to approve a morally questionable application that puts others at risk for significant disruption to their lives.

CONCLUSION

The real-world facts concerning Coffin Butte Landfill have forced the Applicant to do all they can to limit the scope of your attention. I'm sure you've noticed the frequent occurrence of Applicant assertions such as this one:

Methane, in particular, and landfill gas, in general, is not considered a significant source of on- or off-site health risk.[14]

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[12] documented in Applicant's submittals to County Planning and to DEQ for their new Title V Air Quality permit, in process now. That's an increase of 36% over present levels.

[13] "For the first time in the history of the planet, nature is being severely affected and significantly altered by the actions of a single species---humans. Climate change is no longer just a distant threat; it's a present-day reality reshaping the planet in profound and alarming ways. Over the past decade, global temperatures have risen by 1.1°C above pre-industrial levels, with the World Meteorological Organization predicting we could breach the 1.5°C threshold as early as the 2030s. As we approach this tipping point, the world experiences intense heatwaves, rising sea levels, and catastrophic weather events, from devastating wildfires in Canada to unprecedented floods in Libya. It's clear that these effects of climate change have become a serious global crisis that affects economies, health, security, and the environment." – Republic Services (link)

[14] Condit letter, June 6, 2025

In fact methane, in particular, and landfill gas, in general, are considered to be a significant source of on- and off-site health risks – for starters, as we've documented, methane is a prime source of climate damage. The Applicant's goal, in their sentences such as this, is to issue statements that are technically true (we imagine there are people who do not consider methane and landfill gas to be health risks) but a misrepresentation of the real world.

Here's another example:

There is limited data evidence indicating that PFAS is present in landfill gas, but there is no finalized EPA-approved method for sampling or quantifying gas- phase PFAS from landfill gas or combustion emissions.[15]

If you go to the EPA page on PFAS, however, you find that the EPA has a one-word answer to the question "Is there PFAS in landfill gas? Yes." And the lack of established methodologies to study it don't obviate its presence and its potential harms to human health, or its relevance to your deliberations.

In the Applicant's narrative, the world is very narrow. I'm sure you've noticed also that County Planning has found itself trapped in this narrative, responding only within this narrow framework constructed by the Applicant. It has fallen onto the public at large to expand this narrative into one that actually intersects with reality, that asks questions about climate change and the presence and toxicity of PFAS and the impacts of excavating a 150' deep hole and so on. In short, the public at large has responded to the questions that you as Planning Commissioners are asking, about the real-world truths of this huge concern, an application to expand Coffin Butte Landfill.

The public at large does not have the Burden of Proof – the Applicant does – but you've noticed I'm sure that individual members of the public have rushed to supply proofs from the real world, to fill in the vacuum left by the Applicant's constrained narrative. By your criteria, it's not necessary that you find these proofs sufficient because, again, that is not the public's burden, or its goal. Its goal is to inform you, to supply questions that should be asked and rationales for asking them, so that when you deliberate what you've heard, seen and read, you have a real world of information, not some tortured narrative about it.

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[15] Condit letter, June 6, 2025.